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## URBAN GROWTH 2018

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### OVERVIEW

The first International Conference on Urban Growth and the Circular Economy took place at the University of Alicante, Spain. The conference was organised by the Wessex Institute, UK (WIT), represented by Dr Stavros Syngellakis, and the University of Alicante, represented by Professor Joaquin Melgarejo. The meeting was sponsored by WIT Transactions on the Built Environment and the International Journal of Sustainable Development and Planning.

The continuing and rapid growth of cities and their regions of influence has led to the need to find new solutions to facilitate their sustainable development. The quest for the Sustainable City has, until recently, focused on the efficient use of resources with the application of technical advances giving rise to the definition of SMART Cities. The economic model emphasised, however, is still “linear” in the sense that the design and consumption follows the pattern of extraction of natural resources, manufacturing, product usage and waste disposal.

The continuous growth of urban populations has given rise to the emergence of a new model which responds better to the challenges of natural resource depletion as well as waste management. This model has been called the “circular economy”, a recent concept based on the reuse of what up to now has been considered waste, reintroducing them into the productive cycle. The objective of the circular economy is to reduce consumption and achieve savings in terms of raw materials, water and energy, thus contributing to the preservation of resources in order to reach sustainable development.

The circular economy has its roots in environmental economics. Its objective is minimising resources in the production of goods and services. One of the most important of these resources is water, which is becoming a scarce commodity in an ever expanding world whose population demands a better standard of living. The recycling of water is an essential component of the circular economy.

There is no possibility for the success of a long term economic policy without addressing the problems of natural resources and environmental pollution, which will affect the reuse of materials and products.

### OPENING OF THE CONFERENCE

Dr Stavros Syngellakis from the Wessex Institute, UK opened the conference by welcoming the delegates and thanking the University of Alicante for hosting this event.

Stavros then explained that the main aim of WIT is to provide a medium for knowledge transfer at an international level. This objective is achieved through publications and a series of activities, which include conferences, meetings, research at postdoctoral level and consultation services for industry.



Dr Stavros Syngellakis opening the conference

WIT software codes, based on advanced computational methods, are widely used in aerospace, energy and mechanical engineering, amongst others. WIT's commitment in this regard led to setting up a special office in Boston to serve the US community.

Stavros advised the delegates that all papers presented at WIT conferences, once published, are archived in the eLibrary of the Institute ([www.witpress.com/elibrary](http://www.witpress.com/elibrary)) where they are easily accessible to the international community. He finished his introductory remarks by pointing out the Institute's strategic position in the South of England and its welcoming environment to visitors.

He then invited Professor Joaquin Melgarejo, the director of the Institute of Water and Environmental Sciences at the University of Alicante, to address the meeting.

Joaquin pointed out that the idea for the conference owes much to his friendship with Professor Carlos Brebbia,

WIT's late director, to whose memory he paid a warm tribute inviting the delegates to join him in applauding Carlos's life and achievements. He referred to the partnership between WIT and his institute, which is also a multidisciplinary organisation comprising over 50 researchers from various scientific fields. He expressed the hope that the delegates would enjoy the congress and the city of Alicante which is a welcoming place with pleasant climate and plenty of attractions.

On the East coast of Spain and a part of the Costa Blanca, Alicante combines history with a lively coastline and beaches. The city has an old centre containing historic churches, art and archaeological museums, and traditional narrow shopping streets with many bars, restaurants and cafes. Close to the old town, the dramatic Santa Barbara Castle offers excellent views of the city and coastline from its elevated position, and is one of Spain's largest medieval fortresses.

## INVITED PRESENTATIONS

The meeting was enhanced by a series of invited presentations, as follows:

- "The floodable park 'La Marjal' (Alicante, South East Spain), as a paradigmatic example of water reuse and circular economy", **Joaquin Melgarejo**, University of Alicante, Spain.
- "Urban growth and energy supply in African cities: the case of Ethiopia", **Roman Brandtweiner**, Vienna University of Economics & Business, Austria.
- "Preservation of the hydraulic heritage in landscapes under permanent water stress. New approach to utility and sustainability criteria", **Maria Magdalena Martinez Almira**, University of Alicante, Spain.
- "Efficient water management in the smart city", **Andres Molina Gimenez**, University of Alicante, Spain.



Delegates at conference dinner

- “Mobility and collateral effects on Aguascalientes city heritage”, **Alejandro Acosta Collazo**, Autonomous University of Aguascalientes, Mexico.
- “Waterfront landscapes in Spanish cities. Regeneration and urban transformations”, **Pablo Marti Ciriquian**, University of Alicante, Spain.

## CONFERENCE DINNER

The ISAC meeting was preceded by dinner at La Barra de César Anca, a pleasant restaurant near the conference venue. Stavros thanked the members for their help in reviewing submitted papers thus contributing to the high standards of the conference. The usual agenda items, namely conference topics, ISAC membership and venue of the next Urban Growth conference were discussed. Useful proposals and suggestions were made which will be carefully considered by the conference organising committee.

The conference dinner took place at Frenezy, one of the finest international restaurants in Alicante offering an excellent service and a rich choice of menu items. The delegates enjoyed a range of exotic, delectable starters before their choice of main course, all accompanied with excellent local wines. They also had the chance to sample a variety of delicious desserts. The evening was characterised by a friendly, congenial atmosphere with lively conversation and high spirits.

## **CLOSING OF THE CONFERENCE**

At the end of the final session, the meeting was addressed by Professor Andres Molina Gimenez on behalf of Professor Melgarejo and the University Institute of Water and Environmental Sciences. Andres thanked the delegates for their participation, praised the organisation of the conference, expressed his satisfaction with the quality of presentations and wished the delegates' participation in future Urban Growth conferences.

The conference was closed by Dr Stavros Syngellakis who thanked the delegates for their contributions and the host institution for providing its excellent facilities to the conference. He expressed the hope that everyone enjoyed their stay in Alicante and that all participants would meet again in two years' time by attending the next conference in the series, at a time and location still to be arranged.



View of Alicante